

REMARKS

Summary of the Office Action

Claims 2-15, 17 and 19-24 are considered in the Office Action.

Claims 19-21 and 23 have been rejected under 35 U.S.C. § 102(e) as anticipated by Wotton et al. U S. Patent No. 6,336,722 (“Wotton”).

Claims 22 and 24 have been rejected under 35 U.S.C. § 103(a) as obvious based on Wotton and Ju U.S. Patent No. 5,806,992 (“Ju”).

Claims 2 and 17 have been rejected under 35 U.S.C. § 103(a) as obvious based on Wotton and Yraceburu et al U.S. Patent No. 6,409,332 (“Yraceburu”).

Claims 3-15 have been rejected under 35 U.S.C. § 103(a) as obvious based on Wotton.

Reply

This application claims methods and apparatus that include a vacuum table having a substantially flat top surface, a moveable transport belt disposed above the top surface of the vacuum table, and a substantially flat porous sheet disposed between the top surface of the vacuum table and the transport belt, wherein the vacuum generated by the vacuum table creates a suction on a substrate placed on the transport belt, and the porous sheet restricts fluid flow between the table and the transport belt. The Office action asserts that the claimed invention is anticipated by Wotton. Applicants respectfully disagree.

Wotton describes media handling systems for heating and supporting media in an ink-jet printer. (Col. 4, lines 53-56). In the embodiment cited in the Office action, the media handling system includes a platen 142 that forms the top of a vacuum box 149. (Col. 8, lines 21-27). Platen 142 includes a top plate 143 and a bottom plate 145. (Col. 8, lines 31-32). Top plate 143 has a planar support surface 152 that faces a print head 24. (Col. 8, lines 32-35). A transport belt 260 is driven to slide directly across and in contact with support surface 152. (Col. 9, lines 33-35). Transport belt 260 has a transport portion 266 that carries print media 22. (Col. 5, lines 40-41; Col. 9, lines 27-32).

The Office action asserts that the “top” of bottom plate 145 constitutes the claimed substantially flat top surface of the vacuum table, and that top plate 143

constitutes the claimed substantially flat porous sheet that is disposed between the “top” of bottom plate 145 and transport belt 60. Applicants respectfully disagree with this interpretation.

First, the claims recite a vacuum table that comprises a substantially flat top surface. As illustrated in the cross-sectional view shown in FIG. 6, however, bottom plate 145 does not include a substantially flat top surface. Instead, bottom plate 145 includes a peripheral frame 159 that surrounds top plate 143 and includes a groove 161 into which fits the edge of top plate 143. (Col. 8, line 64 through Col. 9, line 2. Further, bottom plate 145 includes an “otherwise flat upper surface 157 . . . [that] is interrupted with an array of cylindrical heater support posts 163 that project upwardly from the surface 157, [sic] These posts are evenly spaced in an array of seven rows and five columns across the area of the bottom plate.” Thus, unlike the claimed apparatus, bottom plate 145 does not have a substantially flat top surface, but instead has a peripheral frame 159 that has a staircase profile, and an interior portion that includes an upper surface 157 that has an array of upwardly projecting heater posts 163.

Second, the claims recite a porous sheet that restricts fluid flow between the table and the transport belt. As described in Wotton, however, top plate 143 does not provide this function. Instead, Wotton states that “bottom plate 145 also includes through apertures 154 that are axially aligned with the apertures [151] in the top plate 143. As a result, the vacuum pressure developed in the vacuum box 149 is communicated through the bottom plate apertures 154, through the air space 155, through the top plate apertures 151 to the ports 144 on the surface of the platen. Thus, the uniform distribution of vacuum pressure is present across the platen support surface” (Col. 9, lines 60-67). Thus, unlike the claimed invention, top plate 143 does not restrict fluid flow between the table and the transport belt. Instead, top plate 143, with its axially aligned apertures functions to directly communicate the fluid flow from bottom plate apertures 154.

Because Wotton does not describe the claimed invention, applicants respectfully request that the Examiner withdraw the § 102(e) rejections of claims 21 and 23. Because all other claims depend from either claim 21 or 23, applicants further respectfully request that the rejections of claims 2-15, 17, 19-20, 22 and 24 also be withdrawn.

Conclusion

For the reasons stated above, applicants submit that this application, including claims 2-15, 17 and 19-24, is allowable. Applicants therefore respectfully request that the Examiner allow this application.

Respectfully submitted,

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